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## PATENT ABSTRACTS OF JAPAN

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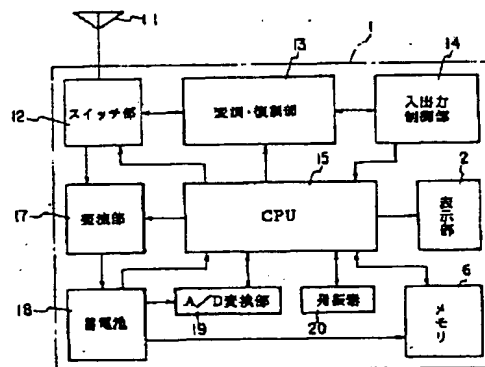
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(54) RADIO TYPE PORTABLE ELECTRONIC DEVICE COPYRIGHT: (C)1995,JPO

(57) Abstract:

**PURPOSE:** To provide a radio card repetitively usable over a long period by providing it with a charging function by the use of radio waves and charging a built-in battery when the battery runs down.

**CONSTITUTION:** In the radio card 1 provided with a radio communication means started through the reception of a start signal sent through a radio channel from a card reader/writer and sending/receiving data with the card reader/writer through a radio channel and incorporating a chargeable battery 18 charged as an operating power supply, when a CPU 15 receives the start signal from the card reader/writer, the CPU 15 senses a voltage of the battery 18 via an A/D converter section 19 and allows a display section 2 to display that the charging is required for the battery 18 when the sensed voltage of the battery 18 is less than a predetermined value. After the necessity of charging is displayed on the display section 2, the charging radio wave is received by inserting the radio card 1 to a radio wave charger, the received radio wave is rectified by a rectifier section 17 to charge the battery 18.



## \* NOTICES \*

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3. In the drawings, any words are not translated.

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**CLAIMS**


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**[Claim(s)]**

[Claim 1] It is started by receiving the seizure signal transmitted by the radio from the exterior. In the portable electronic instrument of the radio formula which has a radio means to transmit and receive the data by the radio between the exteriors, and builds in the cell as power of operation When the seizure signal from the aforementioned exterior was received and the output voltage of the aforementioned cell detected with a cell-voltage detection means to detect the output voltage of the aforementioned cell, and this cell-voltage detection means is below the predetermined value set up beforehand, The portable electronic instrument of the radio formula characterized by providing a display means to display the status of the aforementioned cell.

[Claim 2] It is started by receiving the seizure signal transmitted by the radio from the exterior. In the portable electronic instrument of the radio formula which has a radio means to transmit and receive the data by the radio between the exteriors, and builds in the cell as power of operation When the seizure signal from the aforementioned exterior was received and the output voltage of the aforementioned cell detected with a cell-voltage detection means to detect the output voltage of the aforementioned cell, and this cell-voltage detection means is below the predetermined value set up beforehand, The portable electronic instrument of the radio formula characterized by providing a display means to display the status of the aforementioned cell, and a control means to make the display by this display means suspend after the predetermined time set up beforehand.

[Claim 3] It is started by receiving the seizure signal transmitted by the radio from the exterior. In the portable electronic instrument of the radio formula which builds in the cell which has a radio means to transmit and receive the data by the radio between the exteriors, and can be charged as power of operation When the seizure signal from the aforementioned exterior was received and the output voltage of the aforementioned cell detected with a cell-voltage detection means to detect the output voltage of the aforementioned cell, and this cell-voltage detection means is below the predetermined value set up beforehand, The portable electronic instrument of the radio formula characterized by providing a display means by which charge displays a required purport to the aforementioned cell.

[Claim 4] It is started by receiving the seizure signal transmitted by the radio from the exterior. In the portable electronic instrument of the radio formula which builds in the cell which has a radio means to transmit and receive the data by the radio between the exteriors, and can be charged as power of operation When the seizure signal from the aforementioned exterior was received and the output voltage of the aforementioned cell detected with a cell-voltage detection means to detect the output voltage of the aforementioned cell, and this cell-voltage detection means is below the predetermined value set up beforehand, A transmitting means to transmit the signal of the purport which starts charge after displaying a purport to be charged by display means by which charge displays a required purport to the aforementioned cell, and this display means, The portable electronic instrument of the radio formula characterized by providing a charge control means to answer sending of the aforementioned signal by this transmitting means, to receive the Hertzian wave from the exterior, to change it into electrical energy, and to charge the aforementioned cell with this changed electrical energy.

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JAPANESE

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CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE  
INVENTION TECHNICAL PROBLEM MEANS OPERATION EXAMPLE DESCRIPTION OF  
DRAWINGS DRAWINGS

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